

**UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA**

**CIVIL MINUTES – GENERAL**

Case No. LA CV13-08418 JAK (GJSx)

Date July 13, 2017

Title CH<sub>2</sub>O, Inc. v. Meras Engineering, Inc., et al.

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| Present: The Honorable | JOHN A. KRONSTADT, UNITED STATES DISTRICT JUDGE |
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| Andrea Keifer | Not Reported |
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| Deputy Clerk | Court Reporter / Recorder |
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| Attorney Present for Plaintiffs: | Attorneys Present for Defendants: |
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| None Present | None Present |
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**Proceedings: (IN CHAMBERS) DEFENDANTS' MOTION FOR NEW TRIAL ON DAMAGES OR REMITTITUR (DKT. 473)**

**I. INTRODUCTION**

CH<sub>2</sub>O, Inc. (“Plaintiff” or “CH<sub>2</sub>O”) commenced this patent infringement action in 2013. It alleged that Houweling’s Nurseries Oxnard, Inc., HNL Holdings Ltd., Houweling Utah Operations, Inc., and Houweling’s Nurseries Ltd. (collectively, “Houweling’s” or “Defendants”) and Meras Engineering, Inc. (“Meras”)<sup>1</sup> infringed claims 1, 2, and 7 of U.S. Patent No. 6,767,470 (“the ‘470 Patent”). See First Am. Compl., Dkt. 107; Def.’s Motion, Dkt. 166-1, at 1. On September 6, 2016, following a jury trial, a verdict was entered in favor of CH<sub>2</sub>O and against Meras and Houweling’s on all claims.

Defendants filed a motion for a new trial on damages or remittitur (“Motion”). Dkt. 473. Plaintiff opposed the Motion. Dkt. 488. Defendants replied. Dkt. 502. For the reasons stated in this Order, the Motion is **DEFERRED**.

**II. BACKGROUND**

**A. Technology**

The ‘470 Patent, which is titled “Method for Cleaning and Maintaining Water Delivery Systems,” discloses a “method and composition for cleaning and maintaining water storage and/or distribution systems” using “a reacted mixture of a sodium chlorite solution and a second solution,” e.g., an acidic solution, to obtain chlorine dioxide to inhibit, remove, or eliminate bacterial fouling, mineral deposits, or microorganisms in water storage or distribution systems. ‘470 Patent at 1:11-18, 59.

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<sup>1</sup> Meras and CH<sub>2</sub>O entered a settlement agreement with respect to the claims against Meras. Thereafter, Meras was dismissed. See Dkts. 537, 538.

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The patent teaches that introducing a catalyst such as sodium molybdate enhances the conversion of sodium chlorite to active chlorine dioxide, and that it may take several minutes of reaction time to achieve optimum results. '470 Patent at Abstract, 1:66-2:3, 2:39. Introducing sodium molybdate as a catalyst has two significant effects. First, it accelerates the reaction; second, it reduces the reaction time of the acid with sodium chlorite. *Id.* at 3:61-4:3.

At trial, it was established that chlorine dioxide is a well-known chemical that has been used as a disinfectant for decades in a wide variety of agricultural and industrial applications. Dkt. 474 at 3 (citing Dkt. 469, Tr. at 791:10-24; 1013:7-18; 1014:16-1016:6; 1016:23-1017:3; 1017:8-1018:9; 1107:25-1108:10.) It was also shown that, for many decades, chlorine dioxide has been created the same way, *i.e.*, by mixing sodium chlorite with an acid. *Id.* (citing Tr. at 889:5-21, 1014:22-1015:14.)

**B. Generation of Chlorine Dioxide at Houweling's Facilities**

Chlorine dioxide was created at Houweling's facilities by mixing sodium chlorite, hydrochloric acid, and bleach in a reaction chamber. Dkt. 474 at 4-5.<sup>2</sup> It is undisputed that Houweling's adds no sodium molybdate or any other catalyst to the reaction chamber. *Id.* at 5. However, because the reactions that occur there are not entirely efficient, some residual amounts of both sodium chlorite and acid remain after the reaction is completed. *Id.*

Once the reaction has been substantially completed, the chlorine dioxide solution, which includes the residual sodium chlorite, is moved to a storage tank that is referred to as a "day tank." *Id.* The day tank is connected by a pipe to Houweling's water distribution system, which delivers water to the greenhouses. These processes are shown in the following diagram:

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<sup>2</sup> The mixture of these components results in a reaction that creates chlorine dioxide even if the bleach is not added. Dkt. 469, Tr. at 889:19-21.

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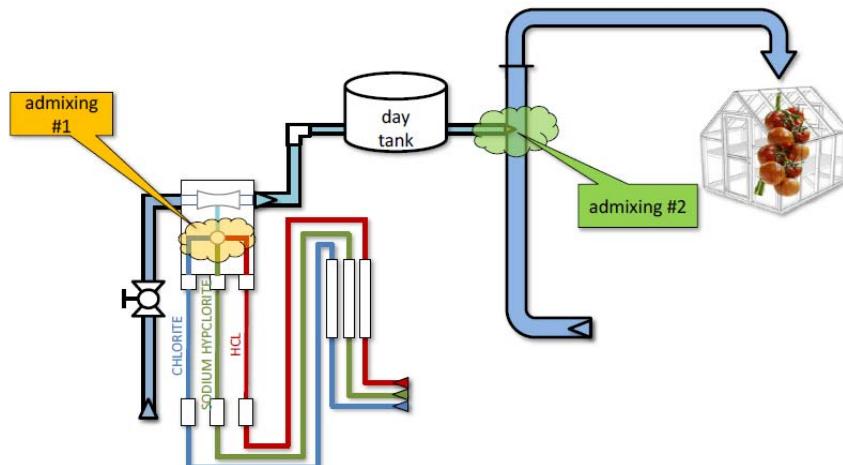
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**Infringement: Admixing**

admixing a sodium chlorite solution with a second solution containing an acid to make a reacted mixture wherein the second solution is acidic enough to convert the sodium chlorite into chlorine dioxide while remaining unaffected in the reacted mixture;



Ex 295-16

Dkt. 498, Ex. B (Ex. 295-16.)

At trial, Plaintiff presented evidence as to its claim of infringement. It was based on the contention that Defendants perform a double-admixing step<sup>3</sup> in which the second instance occurs in the presence of sodium molybdate. (Dkt. 469, Tr. (Hermanowicz) at 903:1-908:1, 1008:7-21.) Thus, most of the chlorine dioxide is formed in the reaction chamber, and only a small portion of the chlorine dioxide is generated from the amount of residual sodium chlorite at the “admixing #2” point and downstream in the presence of the sodium molybdate catalyst.

### **III. ANALYSIS**

#### **A. Legal Standards**

Following a jury trial, a court may grant a motion for a new trial “for any reason for which a new trial has heretofore been granted in an action at law in federal court.” Fed. R. Civ. P. 59(a)(1). Such a motion may be granted “if the verdict is contrary to the clear weight of the evidence, or is

<sup>3</sup> At the injection point “admixing #2,” the sodium chlorite mixes with a second solution containing an acid in the presence of molybdate, which catalyzes the reaction.

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based upon evidence which is false, or to prevent, in the sound discretion of the trial court, a miscarriage of justice.” *Silver Sage Partners, Ltd. v. City of Desert Hot Springs*, 251 F.3d 814, 819 (9th Cir.2001) (citation omitted). However, “a district court may not grant a new trial simply because it would have arrived at a different verdict.” *Id.*

In assessing the clear weight of the evidence, “the judge can weigh the evidence and assess the credibility of witnesses, and need not view the evidence from the perspective most favorable to the prevailing party.” *Landes Const. Co. v. Royal Bank of Canada*, 833 F.2d 1365, 1371 (9th Cir.1987). Even if substantial evidence precludes the entry of judgment as a matter of law, a court may grant a motion for a new trial. *Id.* “[E]rroneous jury instructions, as well as the failure to give adequate instructions, are also bases for a new trial.” *Murphy v. City of Long Beach*, 914 F.2d 183, 187 (9th Cir.1990).

**B. Application**

**1. Apportionment**

Defendants challenge the damages award, arguing that Plaintiff failed to prove more than nominal damages. Dkt. 474 at 13. Specifically, Defendants claim that nearly all of the chlorine dioxide is generated at Houweling’s in a reaction chamber in a non-infringing manner, without the use of sodium molybdate or ammonium molybdate. *Id.* at 13-14. Defendants add that, despite the limited nature of the infringement, Plaintiff’s damages case was improperly based upon the value of all of the chlorine dioxide used in Houweling’s irrigation system. *Id.* at 14. From this, Defendants conclude that Plaintiff’s failure to apportion the value of the small amount of chlorine dioxide created through catalysis within the value of the much greater amount of non-infringing chlorine dioxide that was created without any catalyst, requires vacating the damages award.

Plaintiff responds that it proved that Defendants substantially benefited from pervasive and widespread infringement and presented appropriate evidence on apportionment. In particular, it points to unrebutted evidence showing that Defendants injected the admixed precursor chemicals used to generate chlorine dioxide at “a number of injection points at the Houweling’s facility[ies] – seven in Camarillo [and] five at the Utah facility.” Dkt. 488 at 6. Plaintiff adds that the degree of catalysis was significant, and that there was a significant increase of chlorine dioxide at each injection point.

An assessment of the evidence and these competing positions under the standards of Rule 59, shows that Defendants’ arguments are persuasive. They are consistent with the controlling precedent. As a substantive matter, it is the “value of what was taken” that is to be used as a measure of a “reasonable royalty” under 35 U.S.C. § 284. *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1226 (2014) (internal citations omitted). “What is taken from the owner of a utility patent (for purposes of assessing damages under § 284) is only the patented technology, and

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so the value to be measured is only the value of the infringing features of an accused product.” *Id.*

The Federal Circuit also has explained that “[w]hen the accused infringing products have both patented and unpatented features, measuring this value requires a determination of the value added by such features.” *Id.* “The essential requirement is that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product.” *Id.*; see also *Virnetix, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308, 1326 (2014) (“No matter what the form of the royalty, the patentee must take care to seek only those damages attributable to the infringing features.”).

Although this action does not involve multi-component products, the rationale for apportionment still applies. Plaintiff has not shown that the extensive Federal Circuit case law on apportionment does not apply to method claims. Nor has it identified any legal authority that would support the claim, based on the trial evidence, that a patentee may recover damages for the use of a non-infringing method that a defendant used in conjunction with an alleged infringing one. Further, the need separately to assess the value of the chlorine dioxide created by the patented process is reflected in the stipulated jury instructions. They included the following language:

In this case the '470 patent covers only one component of the method that Meras and/or Houweling's use or sell. It is CH<sub>2</sub>O's burden to demonstrate what value the patented method has added to the desirability of the method as a whole and to separate the value of the patented contribution from the value of other parts of the method that are not attributable to the patented invention.

Dkt. 469, Tr. at 1318:22-1319:4.

Here, the asserted claims require the use of a catalyst in the generation of chlorine dioxide. It is undisputed that generating chlorine dioxide without a catalyst was already known prior to the issuance of the '470 Patent. Therefore, Plaintiff was required to establish the value of producing chlorine dioxide through the patented catalytic method rather than through those used in the prior art. Instead, Plaintiff based its damages theory on the value to Houweling's of all of the chlorine dioxide that it used. This included the majority of the chlorine dioxide, which was created through the use by Defendants of a non-infringing and prior art technique. Dkt. 474 at 15-16 (citing Dkt. 469, Tr. at 760:7-21; 732:20-739:21; 763:7-18; 766:18-22.) This calculation of damages is inconsistent with the governing principles that the Federal Circuit has adopted.

Plaintiff makes several responsive arguments. None is unpersuasive. *First*, it argues that catalysis was significant and “took place throughout the system as opposed to a single reaction chamber.” Dkt. 488 at 6-9. This overstates the evidence, which showed that catalysis only occurred at a few injection points. Further, even if the trial evidence supported this general

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statement, CH<sub>2</sub>O still does not dispute that the total amount of chlorine dioxide generated in the irrigation pipe, i.e., in the presence of a catalyst, is small compared to the amount generated in the reaction chamber in a manner that did not infringe the '470 Patent.

Second, Plaintiff argues that apportionment is unnecessary because it would be impossible for Houweling's to create chlorine dioxide in a non-infringing manner in its reaction chamber without causing some incidental infringement in its irrigation pipes. Dkt. 488 at 10. However, even if a product would not work without incorporating an infringing feature, apportionment is still required. See *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 68 (2012). For example, a computer will be of little value to anyone unless there is a screen, but the inventor of an improved computer screen is not entitled to recover damages on the sales price of an entire computer. Dkt. 474 at 16 (citing *LaserDynamics*, 694 F.3d at 68). "It is not enough to merely show that the [patented feature] is viewed as a valuable, important, or even essential." *VirnetX*, 767 F.3d at 1326-27. Similarly here, the inventor of a method of creating chlorine dioxide using sodium molybdate is not entitled to recover damages based on the value of all chlorine dioxide made by a defendant when only a fraction of that chlorine dioxide is made by using the patented method.

Finally, Plaintiff contends that it did apportion damages by comparing the value of chlorine dioxide to the value of the chlorine that Houweling's had used prior to the infringement. Dkt. 488 at 10. This is not a proper means of apportionment. As *VirnetX* and *Ericsson* illustrate, apportionment requires allocation of damages between the infringing and non-infringing aspects of the accused product or method. Plaintiff has cited no authority that supports its assertion that a patentee is entitled to recover damages on both the infringing and non-infringing aspects solely by comparing the value of the patented technology to prior art.

Patentees must apportion the royalty based on a reasonable estimate of the value of the claimed technology. Plaintiff did not adequately isolate the incremental benefits attributable to the patent technology. Therefore, the damages award of \$12.5 million exceeds the amount that can reasonably be supported by the evidence.

**2. Other Grounds for New Trial Raised by Defendants**

The other grounds advanced by Defendants for a new trial are unpersuasive. Some need not be considered in light of the foregoing analysis. Others are without force.

- a) Whether the Damages Award is Excessive When Considered in Light of the Claimed Lost profits

Defendants argue that the award of \$12.5 million is grossly excessive compared to what Plaintiff charged Houweling's for the provision of chemicals and the use of the patented invention. This was less than \$600,000 per year. Dkt. 474 at 16-17. Plaintiff responds that the jury may

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consider the value conferred to the infringer by use of the patented technology. It adds that Iverson, who owns CH<sub>2</sub>O, was unaware of the full extent of the benefits to Houweling's of the patented invention when Houweling's was a customer of CH<sub>2</sub>O. Dkt. 488 at 13-18. Plaintiff adds that a reasonable royalty is not limited by the infringer's revenues and profits, and a patentee's expected profit does not serve as a ceiling on damages. *Id.* at 17.

There is no *per se* rule that any award of damages is capped by profits. However, evidence as to such profits is often a relevant part of the inquiry. CH<sub>2</sub>O received at most \$600,000 annually through actual negotiations with Houweling's. The damage award of \$12.5 million applied to a three-year period of infringement. This means an annual award of more than \$4 million. This is more than 6.5 times the amount that had been negotiated. This confirms the conclusion that the award of damages exceeds that reasonably supported by the evidence.

b) Apportionment Based on Ammonium Molybdate

Defendants also argue that the damages should be apportioned based on the use of ammonium molybdate. This position relies on the assumption that the use of ammonium molybdate does not infringe the '470 Patent as a matter of law. This argument was rejected in a separate order denying Defendants' motion for judgment as a matter of law. Dkt. 540.

c) Whether Plaintiff's "off-hauling" Theory was Baseless

Defendants object to the inclusion of off-hauling costs in Plaintiff's calculation of benefits associated with using the patented technology. In response, Plaintiff cites evidence establishing that a key benefit of the patented technology was an ability to circulate used water. Absent the use of the technology, Houweling's would have had to dispose of this water offsite by hiring trucks to "off-haul" the spent water from its facility that is located in an environmentally-sensitive watershed. Dkt. 488 at 18-22. For example, Houweling testified that he was obligated under his agreement with the Ventura County Agriculture Irrigated Lands Group to recycle the highest possible amount of water and thereby limit the amount of tailwater runoff. *Id.* at 19. Further, Hagerty, whom Plaintiff called as an expert witness, presented detailed opinions that Houweling's implemented best practices in the recycling of water, and would not violate them. *Id.* He also explained that several California cities and counties implemented off-hauling, as did Plaintiff, and used the costs of their program to average and calculate the off-hauling cost that Houweling's would otherwise have incurred. *Id.* at 20.

Viewed collectively, the trial evidence was sufficient to show that a key benefit of the use of the patented technology was the recirculation of used water. This benefit was relevant to a calculation of damages. Notably, the jury did not award the full amount of damages requested by Plaintiff. How it assessed or applied the evidence on the savings associated with the recycling of water, is uncertain. Therefore, this ground is not an independent basis to grant the Motion.

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d) Whether Plaintiff Improperly Dismissed the Cost of Switching to the Next Best Alternatives

Defendants' final argument is that Plaintiff's theory improperly dismissed the cost of switching to the next best alternatives, including hydrogen peroxide. Dkt. 474 at 21-24. At trial, Plaintiff's experts considered the potential acceptable non-infringing alternatives and concluded that there was none. Dkt. 488 at 22. For example, Hermanowicz testified that hydrogen peroxide "decomposes very rapidly," and would not be as efficient in killing microorganisms. *Id.* at 24. Iverson testified that Houweling's had tried, but abandoned, the use of hydrogen peroxide before switching to CH<sub>2</sub>O's patented technology. *Id.* Iverson also explained that hydrogen "just doesn't work. You can't uniformly apply hydrogen peroxide throughout the irrigation network at a low dose." Dkt. 469, Tr. (Iverson) at 160:16-20.

As noted in connection with the discussion of "off-hauling," the jury did not award the full amount of damages sought by Plaintiff. This could reflect a decision based on the application of the cost of switching to a next best alternative. Nevertheless, based on a review of the trial evidence, it was sufficient as to why other non-infringing alternatives were not viable. Therefore, the jury could properly have considered this evidence in determining the amount of damages.

3. Remittitur

Plaintiff's expert calculated the royalty base by identifying and evaluating four alleged benefits: (i) higher crop yield; (ii) higher crop quality; (iii) lower irrigation and water costs; and (iv) lower off-hauling costs. Dkt. 469, Tr. (McDuff) at 732:17-25. He then reduced that amount by taking into account costs and the sharing of value between the parties. *Id.* at 740: 4-22. However, Plaintiff failed to apportion the value of the amount of chlorine dioxide created through catalysis from the value of non-infringing chlorine dioxide created without any catalyst.

One potential means of addressing this shortcoming would be to calculate how much chlorine dioxide was generated with and without catalysis. At trial, there was some testimony about the estimated efficiency of chlorine dioxide generation at 90% in the reaction chamber. See Dkt. 469, Tr. at 1033:14-1034:2 ("We average between 90 and 95 percent"); 1037:14-1037:1 ("the purity of chlorine dioxide at Camarillo was between 85 and 95 percent."). However, the briefing on the Motion did not expressly address whether this data is meaningful or if it could be applied in a reasonable and appropriate manner in evaluating apportionment or a potential remittitur. Nor did it address whether there may be other potential means of making such calculations based on the trial evidence. Therefore, whether a remittitur would be appropriate, cannot be determined based on the current submissions.

In light of the foregoing, and without making any determination as to whether a remittitur would be appropriate, the parties are permitted to submit simultaneous supplemental briefing. Such

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briefs shall be filed on or before August 14, 2017, and shall set forth the position of each side as to whether a reasonable and appropriate calculation of apportionment can be made based on the trial evidence. Each brief shall not exceed 12 pages, and shall be accompanied by an appendix of any trial exhibits that are cited. Upon the filing of the briefs, the Motion will be resubmitted for decision.

**IV. CONCLUSION**

For the reasons stated in this Order, the Motion is **DEFERRED**.

**IT IS SO ORDERED.**

Initials of Preparer \_\_\_\_\_ : \_\_\_\_\_  
ak